**ATTACHMENT A**
**Resource Adequacy Requirements**
**Phase 2 Workshops and Following Approval Processes**

| | Topic/Decision Cite/Team Lead | Approach | Straw-Person Lead | Nature of Issues to be Resolved |
|---|---|---|---|---|
| | **Phase 1 Follow-up for Load Forecasting Issues** | | | |
| 1 | Specific methodology to identify number of hours for each month that an LSE must "cover" with qualifying capacity<br><br>[D.04-10-035, p. 10]<br>[Jaske] | Workshop | SCE | LSEs have to identify number of hours near peak and show that they have resources that cover each of these hours.<br><br>ISO needs to perform analysis to identify average by month. D.04-10-035, p. 10 |
| 2 | Coincidence adjustments to each LSE's individual hourly load forecast, including calculation methods<br><br>[D.04-10-035, p. 16]<br>[Jaske] | Workshop | Multiple parties | When are load forecasts and historic data provided to CEC?<br><br>How does CEC reports results back to each LSE? |
| 3 | EE/DR impact allocation adjustment methods for each LSE's load forecasts<br><br>[D.04-10-035, pp. 19-20]<br>[Jaske] | Workshop | PG&E | Identify general extent of mismatch between EE/DR program operators versus LSEs with EE/DR program participants<br><br>Create methods to allocate impacts to various classes of customers<br><br>Create method to track participation of ESP customers in each EE/DR program and report info to ESPs |
| 4 | Procedures for quantifying the hourly impacts of committed energy efficiency and demand response tariffs and programs. | Workshop | PG&E | Review current EE evaluation studies to determine what peak estimates are available<br><br>Review current DR evaluation studies to |

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| | [D.04-10-035, pp. 19-20 ]<br>[Jaske] | | | determine what peak estimates are available<br><br>Determine how estimates of hourly impacts near peak hours for May-Sept peak can be approximated using annual peak estimates<br><br>Identify how EE and DR MA&E procedures can be changed to estimate hourly impacts for RAR purposes |
| 5 | An hourly loss methodology that incorporates distribution and transmission losses and unaccounted energy.<br><br>[D.04-10-035, p. 20]<br>[Jaske] | Workshop | SCE, ISO | Identify a complete T&D loss methodology that builds off of approved distribution loss methods<br><br>Determine how proposed methodology will be implemented by each IOU, and results made available to LSEs |
| 6 | Procedures for including distributed generation in monthly peak load forecasts including impacts on hourly sales<br><br>[D.04-10-035, p. 20 ]<br>[Jaske] | Workshop | SCE | Identify short term forecast of capacity from DG installations<br><br>Identify technique to estimate hourly production patterns during near-peak hours for each month May – Sept<br><br>Prepare hourly impact assessment and allocate to each LSE with DG facilities among its customers |
| | **Phase I Follow-up for Resource Counting Issues** | | | |
| 7 | Contract forms that can supplant or supplement for liquidated damage provisions; audits | Workshop | IEP to host conference call 11/19 at | Firm LD contracts cannot readily be assessed from deliverability perspective, thus what alternatives are there? |

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| | [D.04-10-035, pp. 22-23]<br>[St. Marie] | | 11:00am | Once an alternative is identified, what should be done with existing LD contracts? |
| 8 | Methods for determining qualifying capacity of wind and solar without gas backup generators using a monthly, historic performance during the SO 1 on-peak period, methodology.<br><br>[D.04-10-035, pp. 23-24]<br>[St. Marie] | Workshop | IEP | Develop method for estimating available capacity for each month May – Sept for SO1 on-peak period<br><br>What data should be submitted to justify a differential qualifying capacity treatment for new resources? |
| 9 | Method for determining qualifying capacity for energy-limited resources in non-summer months<br><br>[D.04-10-035, p. 25]<br>[St. Marie] | Workshop | PG&E | Should there be a minimum performance rule for energy-limited resources in non-summer months?<br><br>If so, what is that threshold value? |
| 10 | Methods for estimating COD dates for generators of all sizes based upon appropriate modifications to existing CEC and CAISO tracking systems.<br><br>[D.04-10-035, pp. 27-28 ]<br>[St. Marie] | Workshop | CA ISO | What does the CEC need to do to adapt its existing tracking system to be useful to LSEs?<br><br>What does the ISO need to do to adapt its current tracking system to be useful? |
| 11 | Completion of a functional deliverability screening methodology based upon the proposals of the CAISO documented in the workshop report, and its Appendix B, and the specific decisions earlier in this decision. Allocation of intertie.<br><br>[D.04-10-035, pp.29-33 ]<br>[Hattevik] | Workshop | CA ISO (conference call re data requirements 11/22, 10:00am)<br><br>PG&E/SCE (allocation | ISO baseline analysis proposal and its data collection prerequisites should be well understood; schedule and working group management discussed; autonomy of ISO-led working group resolved<br><br>Scope includes generation pockets and qualifying capacity adjustments, assumptions for imports into control area, |

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| | | | of intertie) | load pocket identification and stability; periodic reassessment; conversion into "cookbook" method for LSEs to follow |
| | | | | |
| | **Development of Additional Features from July 8 Ruling and/or Comments** | | | |
| 12 | Month-Ahead forward commitment obligations on a year-round basis, with five summer months reported in advance and remaining seven months not reported<br><br>[D.04-10-035, pp. 36-39]<br>[Hattevik] | Workshop | Constellation New Energy; IEP | What is meant by Month-Ahead?<br><br>What is the means to determine that LSEs are complying with "year-round" Month-Ahead capacity obligations? Does this presume some sort of audit activity? |
| 13 | Development of (1) standard contract language that will require a generator, if not scheduled by the LSE to serve its own load, to bid into the CAISO integrated Day-Ahead market, and if not accepted there to be subject to the residual unit commitment process (RUC), and (2) a reasonable understanding of the probability that a generator not scheduled by the LSE will actually be selected to operate in the RUC process. Definition of capacity product. Treatment of energy limited resources.<br><br>[D.04-10-035, pp. 41-43 ]<br>[St. Marie] | Workshop | IEP to host conference all 11/19 at 11:00am<br><br>SVMG, SCE | What language satisfies this requirement?<br><br>What bid levels will be required for units not scheduled, but required to bid?<br><br>D.04-10-035 pp. 42-43 raises numerous ancillary issues important to understanding "probability" of being called, and thus financial premium generators require in return for being placed under this obligation |
| 14 | Developing specific load forecasting and resource counting conventions for the Month Ahead compliance requirement<br><br>[D.04-10-035, p. ]<br>[St. Marie] | Workshop | SCE, PG&E | Adjustment of some of the protocols and conventions seems necessary in light of the much shorter lead times for Month Ahead. In addition, the time horizon of Month Ahead needs to be established. |

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| | | | | How are protocols for load forecasts and capacity of resources different than for "year-ahead" purposes? |
| 15 | Local resource adequacy requirements<br><br>[D.04-10-035, p.33 ]<br>[Hattevik] | Workshop | ISO | Once a methodology for identifying load pockets exists, how should LSEs be required to march loads with resources? How is the LARS process revised? Are RMR contracts sequentially after LSEs acquire resources? |
| 16 | Allocating DWR Contract Qualifying Capacity to ESPs<br><br>[D.04-10-035, p. ]<br>[Wetzell] | Comments | AReM, TURN | |
| | | | | |
| | **Reporting, reviewing, and sanctions topics:** | | | |
| 17 | Load forecasting filing requirements, including provision of historic load data, adjustment for energy efficiency and demand response activities, and appropriate documentation.<br><br>[D.04-10-035, p. 46 ]<br>[Jaske] | Workshop | | Determine schedule for submission of LSE-specific load forecasts to CEC<br><br>Determine the nature of the actual filing requirements and the depth of documentation. The CEC 2005 IEPR filing requirements adopted 11/3/2004 could be a point of departure for these annual submissions.<br><br>How should historic data be provided (and at what level of detail) and what supporting documentation of contemporaneous |

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| | | | | customer counts are needed?<br><br>What level of departure from historic load is acceptable and what triggers review for "gaming?"<br><br>Creation of a tracking system that compares actual loads with forecasts as the basis for penalties |
| 18 | Resource tabulations showing how load forecasts and planning reserve requirements are satisfied for the hours of each month with loads 90% or greater than peak of the month, tabulations of the qualifying capacity of each resource under contract or the control of the LSE that is deliverable to load for each of these hours, and appropriate documentation.<br><br>[D.04-10-035, pp. 46-47]<br>[St. Marie] | Workshop | | LSEs must show that qualifying capacity "stacks up" against their load in 10-20 hours for each month [pp. 10-11]<br><br>What details of calculations of each resource's qualifying capacity should be shown?<br><br>How are resources identified so that two LSEs may appropriately claim partial capacity from the same unit?<br><br>How should qualifying capacity tabulations be provided, esp. for larger LSES that may have dozens of sources?<br><br>What level of aggregation is public versus what is confidential? What degree if backup documentation is required? |
| 19 | A review process that assures that each LSE's load forecasts was prepared properly, that resources identified | Workshop | | How will review process be supported by CPUC, CEC and CAISO? |

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| | as satisfying each LSE's load and reserve requirements are eligible and deliverable, processes for providing feedback to LSES and opportunities to correct errors and mistakes, and an overall assessment that the collective loads and resources submitted by all LSEs comport with aggregate summer assessments prepared by the CEC and CAISO. Clarify "appropriate action" to be undertaken by Commission.<br><br>[D.04-10-035, pp.18, 47 ]<br>[Jaske] | | | To what extent should CEC and CAISO compare inputs from LSEs to other sources of information?<br><br>How will the "uncovered" portions of generator capacity be identified?<br><br>What kind of access and use of these filings for related purposes is permissible? May the CEC and CAISO use these data for their standard supply-demand tabulations?<br><br>Monitoring of terms and prices of contracts to avoid market power abuses by generators. (pp.15-16) |
| 20 | Specific Filing requirements, review process, and data access rights for the Month Ahead compliance filings<br><br>[D.04-10-035, p. 47]<br>[Hattevik] | Workshop | Constellation New Energy, IEP | What information is actually filed for May-Sept months?<br><br>Does the LSE file month-ahead filings with the ISO, PUC, or both?<br><br>What is the nature of the review? |
| 21 | Penalties and sanctions to enforce load forecasts and reserve requirements.<br><br>[D.04-10-035, p. 47] | Workshop | Constellation New Energy, IEP | D.04-10-035. p. 17 calls for a forecast accuracy tracking system to be used as the basis for penalties. Who, what, when? |

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| | [Hattevik] | | | Are penalties generally based on Month-Ahead deficiencies or "year-Ahead" deficiencies?<br><br>RAR Team could prepare a white paper as a starting point for the workshop discussions |

**(END OF ATTACHMENT A)**

ATTACHMENT B
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